Climate Change Initiative

Green House Gas Reduction Program

How can I reduce my carbon footprint?

There are many ways that you can reduce your carbon usage.

No-cost:

- Turn off and unplug appliances and lights when not in use.
- Turn thermostat to 78 or higher when not home, or 85 (or off) when you are away and use ceiling fans.
- Reduce peak hour energy use.
- Coordinate car trips.
- Use public transit or walk/cycle when possible.

Low-cost:

- Replace incandescent light bulbs with long-lasting, energy-saving CFL's. To learn about free CFL exchanges near you, visit http://www.chulavistaca.gov/clean/conservation/Climate/Energy.asp to
- Use water-efficient faucets, showers, and toilets. Up to 19% of CA's energy are used pumping, treating, and transporting water.
- Insulate your water-heater.
- Replace air conditioner filters.
- Add shade trees. Learn more about how to get free shade trees for your home or school at: http://www.chulavistaca.gov/clean/conservation/Watershed/Tree.asp

Smart investments:

- Buy Energy Star rated appliances. Many utility companies offer rebates for using these appliances. Make an appointment for a free home assessment to learn more and for help getting these rebates: call (619) 409-3893, or email Conservation@ci.chula-vista.ca.us.
- Install energy-efficient windows
- Look into renewable energy technology. Learn more at: http://www.gosolarcalifornia.com/

Energy Conservation Program

What is an LED?

An LED is a Light Emitting Diode. LED lights use up to 95% less energy than incandescent holiday lights, last about 100 times longer and are cool to the touch making them safe to use.

What is the difference between energy efficiency and energy conservation?

Very simply, energy conservation is changing your behavior in order to save energy and money (example: turning off the lights) and energy efficiency means installing appliances, equipment or lighting that use less energy (example: replacing an incandescent light bulb with an energy-efficient compact fluorescent lamp). Both energy conservation and

efficiency measures help you reduce energy use, energy bills, air pollution and greenhouse gas emissions.

When and where are the next CFL bulb exchanges for homeowners?
Currently we have lighting exchanges at the Otay Ranch Town Center Mall on Tuesday's Framers Market from4-8pm.

How do I get a free home energy assessment?
To sign up for a free home energy assessment, make an appointment today by calling (619) 409-3893 or emailing Conservation@ci.chula-vista.ca.us. By signing up for this service, the homeowner will receive a brief evaluation of home energy use, information about money-saving energy improvements, and assistance in applying for SDG&E rebate and incentive programs.

How do I enroll my business in the CFL exchange program or get a free energy assessment?
Call (619) 409-3893 to set up an appointment. We can exchange all incandescent light bulbs with CFL's using 70% less energy, and will even deliver your new bulbs to you. We can also help with finding the right bulb for each fixture, assessing your energy use, applying for other energy incentive programs.

What is a CFL?
CFL's (compact fluorescent light bulbs) are light bulbs that produce light much more efficiently than traditional incandescent light bulbs. In fact, CFL's with the Energy Star label use about 75% less energy than incandescent bulbs. CFL's can also last up to 13 times longer than incandescent bulbs. Lighting accounts for around 25% of the average home's electricity bill, so switching to CFL's could make a significant dent in your annual utility costs.

Is the mercury in a CFL dangerous?
While the average CFL contains 4 mg of mercury (about enough to cover the tip of a ballpoint pen) the energy-saving and pollution-preventing potential of each bulb vastly outweighs the environmental costs. Mercury vapor converts electricity into light. No mercury is released when the bulbs are in use, and even if a CFL breaks, your greatest risk is getting cut from glass shards and not from the very small amount of mercury. According to EPA, a power plant will emit 10 mg of mercury while producing the electricity needed for one incandescent bulb over the course of its lifetime. A CFL, in contrast, would result in the emission of only 2.4 mg of mercury over the same period - a net savings of 3.6 mg per bulb.

How should I dispose of CFL's?

All CFL's and other fluorescent lamps should be recycled or disposed of properly. Mercury is most toxic when it leaches from landfills into the water and then into fish. Therefore, compact fluorescent (CF) bulbs or fluorescent tubes must NOT be thrown away with your regular garbage. In San Diego, there are recycling locations at IKEA on Fenton Parkway and at Birch Aquarium in La Jolla, as well as other locations organized by the city. To learn more about safe disposal of CFL's, visit: http://www.sdge.com/residential/CFL_disposal.pdf

Alternative Transportation Program

Gas prices are too high. What are my options for alternative fueled vehicles?

- *Hybrid electric vehicles* have become increasingly popular. They typically get about twice the mileage of a similar gas-powered vehicle. These combine an electric motor for low speed driving, a gas-powered internal combustion engine for high speed driving, and a regenerative braking system to generate energy when the wheels slow down. There are state rebates for buying these.
- *Hydrogen fuel cells* can also be used to power a vehicle. A hydrogen fuel cell does not generate power; instead it is an efficient way to store power, like a refillable battery. The Governor of California has a plan to implement a "Hydrogen Highway," by 2010 so that hydrogen filling stations are conveniently located.
- *Compressed natural gas-powered vehicles* utilize natural gas, which is also a fossil fuel, for operation. However, these vehicles produce fewer tailpipe emissions than gasoline- or diesel-powered alternatives. Additionally, more than 85% of natural gas used in the US is produced domestically, so these vehicles reduce reliance on imported oil. The MTS busses are powered by compressed natural gas.
- *Biodiesel* is made from vegetable oils, animal fats, and recycled cooking oil. It can be used in diesel engines with little or no modifications. The emissions are 45-90% less toxic than petroleum diesel emissions.

Urban Heat Island Effect Program

What is a "cool roof?"

A cool roof is one that reflects the solar energy and keeps the building cool. This is usually achieved by adding a white or light-colored material to reflect the sun. Another way to achieve this is with what is known as a "green roof" which is a roof that has been planted with some variety of plant to cool the air through evapotranspiration of the plants, as well as insulate the building against heat-gain.